Chapter 18.42

FLOOD DAMAGE PREVENTION*

Sections:	
18.42.010	Statutory authority.
18.42.020	Findings.
18.42.030	Purpose of provisions.
18.42.040	Flood loss reduction methods.
18.42.050	Definitions.
18.42.060	Lands to which this chapter applies.
18.42.070	Areas of special flood hazardEstablishment basis.
18.42.080	Compliance with chapter provisions.
18.42.090	Abrogation and greater restrictions.
18.42.100	Interpretation of provisions.
18.42.110	Liability warning and disclaimer.
18.42.120	Severability.
18.42.130	Development permit required when.
18.42.140	Floodplain administrator—Administrative authority.
18.42.150	Floodplain administrator—Powers and duties.
18.42.160	Construction standards.
18.42.170	Utility facility standards.
18.42.180	Subdivision standards.
18.42.190	Manufactured home standards.
18.42.200	Floodways.
18.42.210	Mudslide (i.e., mudflow) prone areas.
18.42.220	Flood-related erosion-prone areas.
18.42.240	Appeals and requests for variances.
18.42.250	VariancesIssuanceRestrictions.
18.42.260	ViolationPenalty.

^{*} Prior ordinance history: Ords. 580 N.S., 641 N.S. and 769 N.S.

18.42.010 Statutory authority.

The Legislature of the state has, in Government Code Sections 65302, 65560 and 65800 conferred upon local government units authority to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. Therefore, the city council adopts the regulations related to the prevention of flood damage as set out in this chapter. (Ord. 858 N.S. § 1 (part), 1988)

18.42.020 Findings.

- A. The flood hazard areas of the city are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards, which increase flood heights and velocities, and, when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss. (Ord. 858 N.S. § 1 (part), 1988)

18.42.030 Purpose of provisions.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money for costly flood-control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazard:
- F. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood-blight areas;
- G. To insure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To insure that those who occupy the areas of special flood hazard assume responsibility for their actions. (Ord. 858 N.S. § 1 (part), 1988)

18.42.040 Flood loss reduction methods.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. 858 N.S. § 1 (part), 1988)

18.42.050 Definitions.

Unless specifically defined in this section, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage, and to give this chapter its most reasonable application.

- 1. "Appeal" means a request for review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.
- 2. "Area of shallow flooding" means a designated AO or AH zone on the Flood Insurance Rate Map ("FIRM"). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident.
- 3. "Area of special flood-related erosion hazard" is the area subject to severe flood-related erosion losses. The area is designated as Zone E on the Flood Insurance Rate Map (FIRM).
 - 4. "Area of special flood hazard," see "Special flood hazard area."
- 5. "Area of special mudslide (i.e., mudflow) hazard" is the area subject to severe mudslides (i.e., mudflows). The area is designated as Zone M on the Flood Insurance Rate Map (FIRM).
- 6. "Base flood" means the flood having a one-percent chance of being equaled or exceeded in any given year (also called the "100-year flood").

- 7. "Basement" means any area of the building having its floor subgrade (below ground level) on all sides.
- 8. "Breakaway walls" are any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by floodwaters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:
- a. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
- b. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.
- 9. "Development" means any manmade change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
- 10. "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:
 - a. The overflow of floodwaters;
- b. The unusual and rapid accumulation of runoff of surface waters from any source; and/or
- c. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or any unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this subsection.
- 11. "Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.
- 12. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk-premium zones applicable to the community.
- 13. "Flood insurance study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

- 14. "Floodplain" or "flood-prone area" means any land area susceptible to being inundated by water from any source (see definition of "flooding").
- 15. "Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.
- 16. "Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.
- 17. "Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
- 18. "Floodway" means the channel of a river or other watercourse, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "regulatory floodway."
- 19. "Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and shipbuilding and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
- 20. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- 21. "Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of the chapter.
- 22. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred eighty consecutive days.
- 23. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.
- 24. "Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are references.

- 25. "New construction" means, for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by this community.
- 26. "One-hundred-year flood" or "100-year flood" means a flood which has a one percent annual probability of being equaled or exceeded. It is identical to "base flood," which will be the term used throughout this chapter.
- 27. "Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.
- 28. "Remedy a violation" means to bring the structure or other development into compliance with state or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.
- 29. "Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.
- 30. "Special flood hazard area (SFHA)" means an area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99 or AH.
- 31. "Start of construction" includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.
- 32. "Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.
- 33. a. "Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:
 - i. Before the improvement or repair is started; or
- ii. If the structure has been damaged and is being restored, before the damage occurred.

- b. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.
 - c. The term does not, however, include either:
- i. Any project for the improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or
- ii. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.
- 34. "Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.
- 35. "Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided. (Ord. 858 N.S. § 1 (part), 1988)

18.42.060 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards, areas of flood-related erosion hazards and areas of mudslide (i.e., mudflow) hazards within the jurisdiction of the city. (Ord. 858 N.S. § 1 (part), 1988)

18.42.070 Areas of special flood hazard--Establishment basis.

The areas of special flood hazard, areas of flood-related erosion hazards and areas of mudslide (i.e., mudflow) hazards identified by the Federal Emergency Management Agency or the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the City of Morgan Hill," in effect as of February 29, 1988, with an accompanying Flood Insurance Rate Map, which is adopted by reference and declared to be a part of the ordinance codified in this chapter. The Flood Insurance Study is on file at the City Hall located at 17555 Peak Avenue, Morgan Hill, California. This Flood Insurance Study is the minimum area of applicability of this chapter and may be supplemented by studies for other areas which allow implementation of this chapter and which are recommended to the city council of the city. (Ord. 858 N.S. § 1 (part), 1988)

18.42.080 Compliance with chapter provisions.

No structure or land shall be constructed, located, extended, converted or altered after the effective date of the ordinance codified in this chapter, without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Nothing in this chapter shall prevent the city council from taking such lawful action as is necessary to prevent or remedy any violation. (Ord. 858 N.S. § 1 (part), 1988)

18.42.090 Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where the ordinance codified in this chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 858 N.S. § 1 (part), 1988)

18.42.100 Interpretation of provisions.

In the interpretation and application of this chapter, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 858 N.S. § 1 (part), 1988)

18.42.110 Liability warning and disclaimer.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards, areas of flood-related erosion hazards and areas of mudslide (i.e., mudflow) hazards or uses permitted within such areas, will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages

that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 858 N.S. § 1 (part), 1988)

18.42.120 Severability.

The ordinance codified in this chapter and the various parts thereof are declared to be severable. Should any section of this chapter be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the chapter as a whole, or any portion thereof, other than the section so declared unconstitutional or invalid. (Ord. 858 N.S. § 1 (part), 1988)

18.42.130 Development permit required when.

- A. A development permit shall be obtained before construction or development begins within any area of special flood hazards, areas of flood-related erosion hazards or areas of mudslide (i.e., mudflow) hazards established in Section 18.42.070. Application for a development permit shall be made on forms furnished by the floodplain administrator and may include, but not be limited to: plans in duplicate, drawn to scale showing the nature, location, dimensions and elevation of the area in question; existing or proposed structures, fill, storage of materials, and drainage facilities; and the location of the foregoing.
 - B. Specifically, the following information is required:
- 1. Proposed elevation, in relation to mean sea level, of the lowest floor, including basement, of all structures; in Zone AD or VD, elevation of highest adjacent grade and proposed elevation of the lowest floor of all structures;
- 2. Proposed elevation, in relation to mean sea level, to which any structure will be floodproofed;
 - 3. All appropriate certifications listed in Section 18.42.150(D) of this chapter; and
- 4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 858 N.S. § 1 (part), 1988)

18.42.140 Floodplain administrator—Administrative authority.

The city manager or his designate shall administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (Ord. 858 N.S. § 1 (part), 1988)

18.42.150 Floodplain administrator–Powers and duties.

The duties and responsibilities of the floodplain administrator shall include, but not be limited to:

- A. Permit Review.
- 1. Review all development permits to determine that the permit requirements of this chapter have been satisfied,
 - 2. All other required state and federal permits have been obtained;
 - 3. The site is reasonably safe from flooding,
- 4. The proposed development does not adversely affect the flood-carrying capacity of the floodway. For purposes of this chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.
- B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 18.42.070 of this chapter, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data available from a federal, state or other source, in order to administer Section 18.42.160 and the following. Any such information shall be submitted to the city council for adoption.
 - C. Whenever a watercourse is to be altered or relocated:
- 1. Notify adjacent communities and the California Department of Water Resources prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;
- 2. Require that the flood-carrying capacity of the altered or relocated portion of such watercourse is maintained.
 - D. Obtain and maintain for public inspection and make available as needed:
 - 1. The certification required in Section 18.42.160(C)(1) (floor elevations);
- 2. The certification required in Section 18.42.160(C)(2), (elevations in areas of shallow flooding):
- 3. The certification required in Section 18.42.160(C)(3)(c) (elevation or floodproofing of nonresidential structures);
- 4. The certification required in Section 18.42.160(C)(4)(a) or (b) (wet floodproofing standard);
 - 5. The certified elevation required in Section 18.42.180(B) (subdivision standards);
 - 6. The certification required in Section 18.42.200(A) (floodway encroachments);
 - 7. The reports required in Section 18.42.210(D) (mudflow standards).
- E. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards, areas of flood-related erosion hazards or areas of mudslide (i.e.,

mudflow), for example, where there appears to be a conflict between a mapped boundary and actual field conditions. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation, as provided in Section 18.42.240.

F. Take action to remedy violations of this chapter as specified in Section 18.42.080. (Ord. 858 N.S. § 1 (part), 1988)

18.42.160 Construction standards.

In all areas of special flood hazards, the standards set out in this section are required.

- A. Anchoring.
- 1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 - 2. All manufactured homes shall meet the anchoring standards of Section 18.42.190.
 - B. Construction Materials and Methods.
- 1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- 2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- 3. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- 4. Require within Zones AH or AO adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.
 - C. Elevation and Floodproofing.
- 1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in paragraph 3 of this subsection. Upon completion of the structure, the elevation of the lowest habitable floor, including basement, shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the floodplain administrator.
- 2. New construction and substantial improvement of any structure in Zone AH or AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in paragraph 3 of this subsection. Upon completion of the structure, the elevation of the lowest floor including basement shall be certified by

a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the floodplain administrator.

- 3. Nonresidential construction shall either be elevated in conformance with paragraph 1 or 2 of this subsection, and together with attendant utility and sanitary facilities:
- a. Be floodproofed so that below the base flood level the structure is watertight, with walls substantially impermeable to the passage of water;
- b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- c. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the floodplain administrator.
- 4. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
- a. Either a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; or
- b. Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.
- 5. Manufactured homes shall also meet the standards in Section 18.42.190. (Ord. 858 N.S. § 1 (part), 1988)

18.42.170 Utility facility standards.

- A. All new and replacement water-supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system, and discharge from systems into floodwaters.
- B. On-site disposal systems shall be located to avoid impairment to them or contamination from them during flooding. (Ord. 858 N.S. § 1 (part), 1988)

18.42.180 Subdivision standards.

- A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.
- B. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor, and provided to the floodplain administrator.
- C. All subdivision proposals shall be consistent with the need to minimize flood damage.
- D. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards. (Ord. 858 N.S. § 1 (part), 1988)

18.42.190 Manufactured home standards.

All new and replacement manufactured homes and additions to manufactured homes shall:

- A. Be elevated so that the lowest floor is at or above the base flood elevation; and
- B. Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement. (Ord. 858 N.S. § 1 (part), 1988)

18.42.200 Floodways.

Located within areas of special flood hazard established in Section 18.42.070 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge;
- B. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all other applicable flood-hazard reduction provisions of Sections 18.42.160 through 18.42.220. (Ord. 858 N.S. § 1 (part), 1988)

18.42.210 Mudslide (i.e., mudflow) prone areas.

- A. The floodplain administrator shall review permits for proposed construction or other development to determine if it is proposed within a mudslide area.
- B. Permits shall be reviewed to determine that the proposed development is reasonably safe from mudslide hazards. Factors to be considered in making this determination include, but are not limited to:
 - 1. The type and quality of soils;
 - 2. Evidence of groundwater or surface water problems;
 - 3. The depth and quality of any fill;
 - 4. The overall slope of the site; and
 - 5. The weight that any proposed development will impose on the slope.
 - C. Within areas which have mudslide hazards, the following requirements apply:
- 1. A site investigation and further review shall be made by persons qualified in geology and soils engineering;
- 2. The proposed grading, excavation, new construction and substantial improvements shall be adequately designed and protected against mudslide damages;
- 3. The proposed grading, excavations, new construction and substantial improvements do not aggravate the existing hazard by creating either on-site or off-site disturbances; and
 - 4. Drainage, planting, watering and maintenance shall not endanger slope stability.
- D. Within Zone M of the Flood Insurance Rate Map, the community shall adopt a drainage ordinance which at least complies with the standards of Sections 7001 through 7006 and Sections 7008 through 7015 of the most recent amendment of the 1973 Uniform Building Code.
- 1. The location of foundation and utility systems of new construction and substantial improvements;
- 2. The location, drainage and maintenance of all excavations, cuts and fills and planted slopes;
- 3. Protective measures including, but not limited to, retaining walls, buttress fills, subdrains, diverter terraces, benchings, etc.; and
- 4. Engineering drawings and specifications to be submitted for all corrective measures, accompanied by supporting soils engineering and geology reports. (Ord. 858 N.S. § 1 (part), 1988)

18.42.220 Flood-related erosion-prone areas.

A. The floodplain administrator shall require permits for proposed construction and other development within all flood-related erosion-prone areas as known to the community.

- B. Such permits shall be reviewed to determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion and will not cause flood-related erosion hazards or otherwise aggravate the existing hazard.
- C. If a proposed improvement is found to be in the path of flood-related erosion or would increase the erosion hazard, such improvement shall be relocated or adequate protective measures shall be taken to avoid aggravating the existing erosion hazard.
- D. Within Zone E on the Flood Insurance Rate Map, a setback is required for all new development from the ocean, lake, bay, riverfront or other body of water to create a safety buffer consisting of a natural vegetative or contour strip. This buffer shall be designated according to the flood-related erosion hazard and erosion rate, in relation to the anticipated "useful life" of structures, and depending upon the geologic, hydrologic, topographic and climatic characteristics of the land. The buffer may be used for suitable open space purposes, such as for agricultural, forestry, outdoor recreation and wildlife habitat areas and for other activities using temporary and portable structures only. (Ord. 858 N.S. § 1 (part), 1988)

18.42.240 Appeals and requests for variances.

- A. The city council shall hear and decide the appeals and requests for variances from the requirements of this chapter.
- B. The city council shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the floodplain administrator in the enforcement or administration of this chapter.
- C. In passing upon such applications, the city council shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:
 - 1. The danger that materials may be swept onto other lands to the injury of others;
 - 2. The danger to life and property due to flooding or erosion damage;
- 3. The susceptibility of the proposed facility and its contents to flood damage, and the effect of such damage on the individual owner;
- 4. The importance of the services provided by the proposed facility to the community;
 - 5. The necessity to the facility of a waterfront location, where applicable;
- 6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - 7. The compatibility of the proposed use with existing and anticipated development;
- 8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- 9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

- 10. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site; and
- 11. The costs of providing governmental services during and after flood conditions, including maintenance and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- D. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing subsections (C)(1) through (C)(11) of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- E. Upon consideration of the factors of subsection C of this section and the purposes of this chapter, the planning commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
- F. The floodplain administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. (Ord. 858 N.S. § 1 (part), 1988)

18.42.250 Variances--Issuance--Restrictions.

- A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
- B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - D. Variances shall only be issued upon:
 - 1. A showing of good and sufficient cause;
- 2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
- 3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- E. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the provisions of subsections A through D of this section are satisfied and that the structure or other

development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

F. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the risk resulting from the reduced floor elevation. A copy of the notice shall be recorded by the floodplain board in the office of the county recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

18.42.260 Violation--Penalty

Any person violating any of the provisions of this chapter and any person who fails to comply with the requirements of this chapter, shall for each and every violation thereof, and for each and every day or fractional part thereof during which such violation shall continue, be deemed guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period of not more than six months, or by both such fine and imprisonment. (Ord. 1320 N.S. § 17, 1997; Ord. 858 N.S. § 1 (part), 1988)